

Upper subhymenial 10–24  $\mu$  of hypothecium in places very faintly brownish (at least in thicker sections). No distinct myelohyphic stratum or central cone developed. Hymenium 55–60  $\mu$  high, in its uppermost 10–14  $\mu$  densely black or aeruginose-blackish (not dark brown as stated by Dodge), the pigment also penetrating in irregular streaks downwards into the rest of the hymenium. Paraphyses discrete in water, simple or often branched, rather stout (2–3  $\mu$ ), septate and often slightly articulated, at the tips clavate-capitate, often in  $\pm$  moniliform fashion, up to 3–4 (–5)  $\mu$ , and there dark aeruginose (KHO—). Asci 35–45  $\mu$  long, 7–12  $\mu$  broad, clavate, with somewhat gelatinous wall 1–2  $\mu$  thick at sides and at the apex spuriously thickened up to 5  $\mu$ . Spores 6–8 in ascus, packed vertically at different levels; colorless, straight, cylindrical-fusiform; seen only immature inside the ascus, transversely 3–5-septate, 17–25  $\times$  2.5–3.0  $\mu$  (according to Dodge, about 7-septate, 16–18  $\times$  2  $\mu$ ).

It is not impossible that this species may represent an extremely weathered and depauperated condition of the foregoing, but this could be satisfactorily demonstrated only by further study in its natural habitat. It seems to differ from *B. stipata* in the absence of distinct separate stipes, these being replaced by spongy-fibrose strands; also in the smaller apothecia without distinctly differentiated central cone tissue, and possibly in the shorter spores.

The *Bacidia laseroni* described by Dodge, *op. cit.*, p. 108 is epiphytic or parasitic on the weathered thallus of this species, and appears to be distinct, as it is described as having its own glebose, dark green to blackish thallus.

[To be continued]

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## BETULA LENTA VAR. UBER ASHE

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THE exact status of a peculiar small birch collected by the late W. W. Ashe in Wythe County, Virginia, in 1914 has been something of a botanical enigma. A low tree, originally designated as *Betula lenta* var. *uber* Ashe (1918), it was raised to specific rank by Fernald (1945).

Ashe in describing his find said little about the plant beyond the fact that it looked like a small-leaved form of *B. lenta* L. and that it was found on the "bank of Dickey Creek, south of Rye Valley Station, Wythe County, Virginia, January (*sic*) 1914, 2800'." The specimen being in leaf and young fruit indicates that the date should have read June rather than Janu-

ary, an error probably having arisen from transcribing his original notes on the collection.

Fernald, in treating this birch as a species, relates it with reservation to the *Humiles* series of *Betula*, stating that "it is difficult to feel that the low tree described by Ashe as a small-leaved variety of *Betula lenta* has much, except aromatic bark, to do with that species." He based his placement in the series primarily upon the small number of veins in the leaves and their semipalmate disposition. In raising this birch to specific rank, he emphasized the need for learning more about its nature and distribution.

No collections of this birch appear to exist other than Ashe's type, which is deposited in the U. S. National Herbarium, and the isotypes in the Gray Herbarium and the herbaria of the Arnold Arboretum and the New York Botanical Garden.

The natural distribution and ecological requirements of the *Humiles* birches make it quite unlikely that any would be expected to occur in the highly dissected, mature terrain of southwestern Virginia. Correspondence with District Ranger F. M. Wolcott of the Jefferson National Forest at Wytheville failed to disclose any current local knowledge of the existence of such a tree, although Mr. Wolcott reported having searched the type area when in the vicinity.

Similarly Prof. H. H. Bartlett writes that Mr. Walter Kleinschmidt of the University of Michigan Botanical Gardens searched the type area in the summer of 1952 and could find nothing resembling the erstwhile *B. lenta* var. *uber*.

On January 11, 1953, the writer had the opportunity to examine the type area.<sup>1</sup> Although winter, no difficulty was anticipated in identifying such a unique birch as *B. lenta* var. *uber* appeared to be, certainly not if it existed as a population of biological significance in the area.

Dickey Creek passes through the small community of Sugar Grove, which is typical of the rural towns of that area, not far from Marion, Virginia. Rye Valley Station is a point in Sugar Grove where a railroad formerly servicing the community maintained a depot. The banks of the creek in the town area are

<sup>1</sup> Travel and research supported by the Maria Moors Cabot Foundation for Botanical Research, Harvard University.

largely clear with but a fringe of brush and scattered trees. Following the course of the stream is state highway 10 which upon leaving Sugar Grove ascends into the adjoining Jefferson National Forest.

A careful search of the banks for a distance of four miles, starting in Sugar Grove and continuing past Rye Valley Station into the Jefferson National Forest, turned up no birches other than *B. lenta* and *B. lutea* Michx. f., the common ones of the region. *Alnus serrulata* (Ait.) Wild. was also noted as abundant in many spots along the creek. All *B. lenta* trees seen, both large and small, could be readily identified as characteristic even in their winter condition by the presence of persistent fruit of normal size, an occasional withered leaf, or normal habit and proportions.

In being a low tree, 20–25 feet high, *B. lenta* var. *uber* resembles somewhat the hybrid *B. × jackii* Schneid. (*B. pumila* × *lenta*) which can best be described as a very large shrub or bushy tree. The characters of the fruit of the two plants are also grossly similar, particularly in size and the abundance with which it is borne. The leaves, however, differ substantially, those of the hybrid being ovate or elliptic-ovate while those of *B. lenta* var. *uber* are nearly orbicular and subcordate. Furthermore, the absence of *B. pumila* in the Southern Appalachians precludes the possibility of *B. lenta* var. *uber* being a hybrid of this constitution.

The only conclusion that seems warranted at this time from these several failures to rediscover this birch is that it probably no longer exists as an individual and very likely never did so in the form of a population. Ashe's birch has probably died or been destroyed in the process of urbanization of the community in which he found it 40 years ago. It is probable that this birch variety was founded solely on an aberrant individual and certainly does not appear to deserve further consideration as a species.

#### LITERATURE CITED

- ASHE, W. W. 1918. Notes on *Betula*. RHODORA 20: 64.  
FERNALD, M. L. 1945. Some North American *Corylaceae* (*Betulaceae*).  
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